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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,234	04/09/2004	Paul Edward Cuddihy	136275-1	1724
6147	7590	04/05/2006	EXAMINER	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309			TANG, SON M	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,234	<b>Applicant(s)</b> CUDDIHY ET AL.	
	<b>Examiner</b> Son M. Tang	<b>Art Unit</b> 2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/09/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-3, 7, 15 and 19-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ichikawa** [US 5,153,560].

**Regarding claims 1, 15 and 19-21:** Ichikawa discloses a system for determining whether a resident of a home is inactive within the home or away from the home, comprising:

- a least one motion sensor IR (1) positioned to detect a first activity and to transmit a first signal (6a) indicative of the first activity;
- at least one exterior door sensor (2) positioned to detect motion of an exterior door of the home and to transmit a second signal (6c) indicative of motion detected; and the first and second signals are being determined by a determination circuitry consists of components [5a, 4c, 5b-5c, 8, 9b 5e and 9a], wherein the determination circuitry to determine whether a resident of the home is away from the home based upon the timing of the first signal relative to the second signal (i.e. the determination base upon which sensor is detected the motion first) [see Fig. 4, col. 4, lines 25-30 and col. 5, lines 50-68 to col. 6, lines 1-12], and when the remaining one does not move until the given time set is passed, the infrared sensor produces no output signal [see col. 7, lines 9-16], that constitutes an inactive within the home.

Ichikawa does not specifically call said determination circuit is a monitoring center, however, the determination circuit is a local determination circuitry which receives signals transmitted from the motion sensors and determines the absent/presence of a resident upon the timing of first and second signals received at the determination circuitry. Since, the determination circuitry is used to determine the condition and associated with more than one sensor, therefore, it would have been obvious of one having ordinary skill in the art to recognize that the determination circuitry can be called as any appropriate name such as central, station, center processing or monitoring center as claimed.

**Regarding claims 2-3:** Ichikawa discloses that motion sensor comprises a timer adapted to run the pre-selected time period after the detection of the first signal (met by the multivibrator 4e, see col. 7, lines 9-12), except for not specifically mention that the pre-selected time period is no greater than five minutes. As long as, the timer is being run correctly, employing any known pre-selected time period for the same function and performing is not constitute an inventive step, but it a matter of design choice, since, one skill in the art would want the sensor run for a long/short period of time depend on the environment of the monitor area (i.e. hall, room, kitchen and lobby etc.) each location may have different sensitivity for that sensor. Therefore, it is obvious of one having ordinary skill in the art at the time the invention was made to implement any appropriate pre-selected time period for the sensor as user desired, including the time of no greater than five minutes as claimed.

**Regarding claims 23-25:** Ichikawa further stated that if the remaining one (person) does not move until the given time set by the multivibrator passes then sensor produces no output signal [see col. 7, lines 10-13], which constitutes of whether the home is in an active state when

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sensor has opened or closed within a predetermined time (given time), and further shown in [col. 6, lines 59-68 to col. 7, lines 1-22].

**Regarding claims 7 and 22:** Ichikawa further discloses that the motion sensor (1) is an inside door sensor [see col. 5, lines 27-29].

3. Claims 4-6, 8-12, 16-18 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ichikawa** in view of **Lane et al.** [US 6,002,994; Lane].

**Regarding claims 4-6:** Ichikawa discloses all the limitations as described above, except for not specifically disclose that said motion sensor and door sensor are wireless sensors and a relay panel for relaying the sensor signals to monitoring center. Lane teaches a system for monitoring the activities of a user within a selected environment which comprising wireless motion sensors (20, 122, 124 and 128) including a communications relay panel met by a repeating hub (70) for relaying the sensor signals to the monitoring center (60) [see Fig. 2 and 18, col. 3, lines 20-45 and col. 8, lines 3-18]. It is common for wireless detection to implement a relay panel for transmitting the detected signals to a remote location when there is a plurality of detectors. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement a wireless sensor technology with a relay panel as suggested by Lane into the system of Ichikawa, for the benefit of reduce wiring labor.

**Regarding claims 8-9 and 16-17:** Ichikawa and Lane disclose all the limitations as described above, Lane further teaches that wireless motion sensor comprises a transmitter for transmitting the first signal indicative of the first activity and a sensing portion is inherently included in the sensor [see Fig. 3], except for not specifically disclose a signal processor.

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Examiner takes Official Notice that signal processor is known in motion detector art which is for determining the detected signal via the transmit/receive signal. Therefore, it would have been obvious of one having ordinary skill in the art that most motion sensor includes a processor, so that the detecting signal can be determined.

**Regarding claims 10 and 18:** Ichikawa further discloses that the sensing portion comprises a sensing technique of passive infrared [col. 4, line 43].

**Regarding claims 11 and 26-27 :** Ichikawa discloses a system for determining whether a resident of a home is inactive within the home or away from the home, comprising:

- a least one motion sensor IR (1) positioned to detect a first activity and to transmit a first signal (6a) indicative of the first activity;
- at least one exterior door sensor (2) positioned to detect motion of an exterior door of the home and to transmit a second signal (6c) indicative of the motion; and the first and second signals are being determined by a determination circuit that consistent of components [5a, 4c, 5b-5c, 8, 9b 5e and 9a], wherein the determination circuit to determine whether a resident of the home is away from the home based upon the timing of the first signal relative to the second signal [see Fig. 4, col. 4, lines 25-30 and col. 5, lines 50-68 to col. 6, lines 1-12], when the remaining one does not move until the given time set is passed, the infrared sensor produces no output signal indicating that no person is present in the room, whereby, a pre-selected period is determined by a timer (multivibrator 4e) [see col. 7, lines 9-16], that constitutes an inactive within the home, because no movement within a certain period time means inactive within the home, and Ichikawa discloses a timer adapted to run a pre-selected time period (given time) after the detection of the first activity [see col.

Ichikawa does not specifically disclose a communications relay panel that communicates with a monitoring center. Lane teaches a system for monitoring the activities of a user within a selected environment which comprising wireless motion sensors (20, 122, 124 and 128) including a communications relay panel met by a repeating hub (70) for relaying the sensor signals to the monitoring center (60) [see Fig. 2 and 18, col. 3, lines 20-45 and col. 8, lines 3-18], Lane and Ichikawa are in the same field of invention, which use to monitor presence/absent of person movement inside a specific area. In addition, it is common for wireless detection technology to implement a relay panel for transmitting (relaying) when there is more than one detector used in the system. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement a wireless sensor technology with a relay panel as suggested by Lane into the system of Ichikawa, for the benefit of reduce labor cost to install wire sensor and for relaying the detected signal of a particular sensor to the remote location without any interference with other sensor.

**Regarding claim 12:** Ichikawa discloses that motion sensor comprises a timer adapted to run the pre-selected time period after the detection of the first signal (met by the multivibrator 4e, see col. 7, lines 9-12), except for not specifically mention that the pre-selected time period is no greater than five minutes. As long as, the timer is being run correctly, employing any known pre-selected time period for the same function and performing is not constitute an inventive step, but it a matter of design choice, since, one skill in the art would want the sensor run for a long/short period of time depend on the environment of the monitor area (i.e. hall, room, kitchen and lobby etc.) each location may have different sensitivity for that sensor. Therefore, it is obvious of one having ordinary skill in the art at the time the invention was made to implement

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any appropriate pre-selected time period for the sensor as user desired, including the time of no greater than five minutes as claimed.

**Regarding claim 28:** Refer to claim 7 above.

***Response to Arguments***

4. Applicant's arguments, filed 1/5/2006, with respect to claims 1-28 have been fully considered and are persuasive. The previous of Non-final rejection sent 10/05/2005 has been withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

  
**BENJAMIN C. LEE**  
**PRIMARY EXAMINER**